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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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C. David Chan
11 Westview Avenue
North Salem, NY 10560

[REDACTED] EXAMINER

HO, TUAN V

ART UNIT	PAPER NUMBER
	2612

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/352,661	CHAN, CHUK DAVID	
	Examiner TUAN HO	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 June 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,4-6,9,11-16,18,20 and 22-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,2,4-6,9,11-16,18,20 and 22-25 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

Art Unit: 2612

1. Applicant's arguments with respect to claims 1-2, 4-6, 8-9,

11-16, 22-25 have been considered but are moot in view of the

new ground(s) of rejection.

2. The finality of the rejection of the last Office action has been withdrawn due to new grounds of rejection.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Dennis, Jr. (US 4,054,752).

With regard to claim 1, Dennis et al discloses in Fig. 4, a camera system performing an incident recording, which comprises the means for continuously capturing an actual scene (TV camera 64 inherently includes an image sensor which is used to continuously capture an optical image; it is noted that the image sensor inherently comprises photosensitive elements used convert optical images into electrical images, col. 7, line 5), means for buffering up a plurality of captured visual scene (video loop recorder 58 records the images with a capacity of 30 minutes, col. 6, lines 54-57 and col. 3, lines 12-68; it is

Art Unit: 2612

noted that a loop recorder such as a continuous-loop cassette can records within a time capacity and since it is a loop recorder, the first data is replaced first with a new data after the time limit is ended), means for preserving buffered scenes (video recorder 58 and audio recorder 56 operate the continuous-loop cassette so as to preserve the scene at the time capacity of the cassette; it is noted that a playback operation is inherently in the recorder; otherwise; a user cannot review the evidence of the scene); and means for manually triggering a preservation of captured scene (a third button can give an immediate alarm independently, col. 5, lines 1-15; where the button is operated by a cashier; it is noted that after triggering an alarm, the scene is protected from erasing and recording so as to preserve the evidences, col. 3, lines 59-68).

It is noted that the term "digital" in the preamble is not given any patentable weight since the body of the claim does not recite any limitations which support the term.

With regard to claim 12, Dennis et al discloses in Fig. 4, a camera system performing an incident recording, which comprises the means for capturing sound waves (microphone 60, col. 6, line 59-62), means for buffering the captured sound waves (video recorder 58, col. 6, line 62), and means for preserving the buffered sound waves (col. 3, lines 59-68).

Art Unit: 2612

With regard to claim 22, Dennis et al discloses in Fig. 4, a camera system performing an incident recording, which comprises the human triggering event (foot or knee operated switch, col. 5, lines 7-14).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dennis, Jr. et al. in view of Toyoda et al (US 4,420,773).

With regard to claim 16, Dennis et al discloses in Fig. 4, a camera system performing an incident recording, which comprises the steps of continuously capturing an actual scene (TV camera 64 inherently includes an image sensor which is used to continuously capture an optical image; it is noted that the image sensor inherently comprises photosensitive elements used convert optical images into electrical images, col. 7, line 5), continuously buffering up a plurality of captured images from

Art Unit: 2612

(video loop recorder 58 records the images with a capacity of 30 minutes, col. 6, lines 54-57 and col. 3, lines 12-68; it is noted that a loop recorder such as a continuous-loop cassette can records within a time capacity and since it is a loop recorder, the first data is replaced first with a new data after the time limit is ended), manually triggering a permanent preservation of a plurality of frames of buffered images (video recorder 58 and audio recorder 56 operate the continuous-loop cassette so as permanently to preserve the scene at the time capacity of the cassette; a third button can give an immediate alarm independently, col. 5, lines 1-15; where the button is operated by a cashier; it is noted that after triggering an alarm); and preserving the buffered images (the recorded scene is protected from erasing and recording so as to preserve the evidences after a cashier activates the alarm switch, col. 3, lines 59-68); except for the step of converting the actual visual scene into digital form.

Dennis, Jr. et al does not explicitly disclose any step of converting the images into digital from. However, Toyoda et al teaches using a video camera which can convert image data from image sensor 105 into digital from by A/D converter 108, col. 7, line 17). As a result, the digital form of the images can be stored in a semiconductor memory chip and transferred to a

personal computer, and thereby easily to archive the images and display on a computer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the circuit of Dennis et al so as to convert the images into a digital form as disclosed by Toyoda et al because the conversion of the images would allow a user to store digital images into a semiconductor memory chip and transfer to a computer for display.

With regard to claim 20, Dennis, Jr. et al discloses the steps of capturing surrounding sound wave (microphone 60), buffering the captured sound wave (recorder 58), and preserving the buffered sound wave (col. 3, lines 64-68).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dennis et al.

With regard to claim 11, Dennis et al discloses the same subject matter as discussed with respect to claim 1, except for the housing means to protect the scene from being destroyed by an environment factor.

Official Notice is taken for a plastic housing of a video camera that can protect camera internal circuits from being

Art Unit: 2612

destroyed by environment factor including temperature, impact, shaking, electrical shock and moisture.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the camera housing of Dennis et al with the plastic housing so as to obtain a housing not being destroyed by the environment factor because the housing would improve the performance of the camera by protecting the recorded data from being destroyed and thereby to provide a better image scene quality.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this

Art Unit: 2612

application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4, 5, 6, 12, 16, 20, 22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Rayner (US 6,389,340).

It is noted that the information, cited in this rejection, has been verified with respect to parent's case 09/020,700 filed 2/9/1998.

With regard to claim 1, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for continuously capturing an actual scene (video camera 22 comprises an image sensor that converts image scene into video signals, col. 3, line 41), means for buffering up a plurality of captured visual scene (DRAM 38 is a continuous-loop buffer that records a scene in the manner of first-in-first-out so as to hold a plurality of visual scenes continuously, col. 4, line 10-21), means for preserving buffered scenes (DRAM 38 and permanent memory ⁵¹ ~~36~~ are used as to preserve a buffered scene; where a circuit is used in DRAM 38 to record image data after the occurrence of the triggering event with a sufficient amount of data and to retain pre-event data without overwritten, col. 5, lines 15-22); and means for manually triggering a preservation of captured scene

Art Unit: 2612

(panic button 58 is triggered by an operator, col. 5, lines 48; Rayner states that the pre-event is protected by a circuit that records scene data after the occurrence of triggering event with a sufficient amount so as not to overwrite the pre-event data, col. 5, lines 15-2).

With regard to claim 2, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for temporary storage using a volatile memory device (continuous loop-buffer DRAM 38 is a volatile memory, col. 7, line 54).

With regard to claim 4, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for preserving buffered scene comprising a persistent storage unit permanent digital memory 56 is used to store scene data from DRAM 38 so preserve the scene data in memory cells. It is noted that the volatile DRAM has a continued power supply so as to retain the data in the memory and is a temporary memory medium.

With regard to claim 5, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for buffering the captured scenes is achieved by feeding the captured scenes into

Art Unit: 2612

the volatile memory (image data from the camera 22 is transferred to volatile DRAM 38, col. 4, lines 9-21).

With regard to claim 6, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for buffering up (image data from the camera 22 is transferred to volatile DRAM 38, col. 4, lines 9-21).

With regard to claim 12, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the means for capturing sound wave (microphone 44, col. 4, line 28), means for buffering the sound wave (DRAM 38, col. 4, line 55), and means for preserving the buffered sound (col. 5, line 10-23 and col. 6, lines 19-40).

With regard to claim 16, method claim 16 corresponds to apparatus claim 1 and analyzed the same with respect to claim 1.

With regard to claim 20, method claim 20 corresponds to apparatus claim 12 and analyzed the same with respect to claim 12.

With regard to claim 22, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the manual activation is a

Art Unit: 2612

human induced triggering event (button 58 is activated by an operator, col. 5, line 47).

With regard to claim 24, Rayner discloses in Fig. 3, a vehicle data recorder converting image data into a digital form by A/D converter 30, that comprises the manual activation is a human induced triggering event (button 58 is activated by an operator, col. 5, line 47).

With regard to claim 25, Rayner discloses that the cameras takes still pictures frame and stops at a certain frames so as to protect pre-triggering data due to FIFO memory effects.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 11, 13, 14, 15, 18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayner.

With regard to claim 9, Rayner discloses the same subject matter as discussed with respect to claim 1, except that the

Art Unit: 2612

image capturing unit is used to capture scene of a forward view as well as a backward view.

Rayner discloses that two cameras 22 and 24 are used to record the scene. Official Notice is taken for a surveillance cameras that are installed at forward position and backward position so as to record forward scenes and backward scene including an operator.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the camera system Rayner so as to obtain cameras installed forward and backward direction in order to record the scene including the camera operator because the modification of the Rayner system would allow an investigator who obtain more details of an accident and thereby to provide a better investigation.

With regard to claim 11, Rayner discloses the same subject matter as discussed with respect to claim 1, except that the housing means to protect the scene from being destroyed by an environment factor.

Official Notice is taken for a plastic housing of a video camera that can protect camera internal circuits from being destroyed by environment factor including temperature, impact, shaking, electrical shock and moisture.

Art Unit: 2612

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the camera housing of Rayner with the plastic housing so as to obtain a housing not being destroyed by the environment factor because the housing would improve the performance of the camera by protecting the recorded data from being destroyed and thereby to provide a better image scene quality.

With regard to claims 13 and 14, Rayner discloses a camera system which is used in an automobile so as to record accident scene. In other words, the system must be inherently attached by a installation housing to the automobile so as to take pictures of the scene; and of course, the system can be detachable so as to take pictures as desired. Rayner does not discloses an installation that is attached onto a surface and large enough to hold the camera when inserted into the housing.

Official Notice is taken for a installation box housing that is large enough to hold a camera.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the housing of Rayner so as large enough to hold the camera system when inserted in the housing because the housing would provide a rigid platform to support the camera and thereby to provide better image quality.

Art Unit: 2612

It is noted that since the cameras of Rayner are installed in an automobile to monitor surrounding scenes, the cameras must be inherently portable and hand-held device so as to easily to operate by an operator.

With regard to claim 15, Rayner discloses CPU 34 which is used to control the camera system; were the CPU includes micro-processor, micro-controller and programmable logic circuit. However, Rayner does not explicitly disclose a DSP, PAL, EPLD, and FPGA. Official Notice is taken for a DSP, PAL, EPLD, or FPGA that is used for a controlling circuit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the CPU of Rayner with a DSP, PAL, EPLD, or FPGA so as to control the camera system and thereby to provide more choices for controlling the system Rayner.

With regard to claim 18, Rayner discloses G force sensors are used to detect physical impact, sudden change in momentum, and shock wave cause by an impact. However, Rayner does not discloses sudden change in sound wave, unusual occurrence of objects, distance between the object , and atypical movement of an object.

Art Unit: 2612

Official Notice is taken for sudden change in sound wave, unusual occurrence of objects, distance between the object , and atypical movement of an object.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the detecting features such as sudden change in sound wave, unusual occurrence of objects, distance between the object , and atypical movement of an object in the camera system of Rayner so as to detect the accident. This is because the incorporation of the detecting features would provide more accurate detecting methods for the Rayner system.

With regard to claim 23, Rayner discloses a microphone and G force sensors 40 and 42; where the sensors are used to detect physical impact, momentum and shock wave. Official Notice is taken for means for automatically triggering including software, firmware, and hardware, comprising programmable logic instruction that fire off a signal in response to an external signal and sudden change in sound wave amplitude.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the circuits for automatically triggering including software, firmware, and hardware, comprising programmable logic instruction that fire off a signal in response to an external

signal and sudden change in sound wave. This is because the incorporation of the detecting features would provide more accurate detecting methods for the Rayner system and thereby to provide more details of the accident to an investigator.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee discloses a vehicle monitor system which includes impact sensors.

Hill discloses an apparatus for recording sensor data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan Ho whose telephone number is (703) 305-4943. The examiner can normally be reached on Monday-Friday from 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Art Unit: 2612

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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7/11/03



TUAN HO
PRIMARY EXAMINER